



07-05-01

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: James G. Wetmur et al. )

Serial No. Not Yet Assigned )

Filed: Herewith )

Prev Ex'r: Eggerton A. Campbell,  
Ph.D.

Title: NUCLEIC ACID DISPLACER )  
COMPOSITIONS AND CELLS COMPRISING )  
SAME (As Previously Amended) )

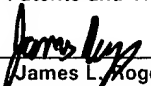
**FILED BY EXPRESS MAIL**

HON. COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

**TRANSMITTAL**  
**INFORMATION DISCLOSURE STATEMENT**

Sir:

Transmitted herewith is an Information Disclosure Statement which is being filed in accordance with 37 C.F.R. §§1.56 and 1.97-1.98. The items listed on Form PTO-1449, a copy of which is enclosed, may be deemed to be pertinent to the above-identified application and are made of record to assist the Patent and Trademark Office in its examination of this application. The Examiner is respectfully requested to fully consider the items and to independently ascertain their teaching.

EXPRESS MAIL CERTIFICATE	
"Express Mail" Label No. <b>EL839968724US</b>	
Deposit Date	<b>July 3, 2001</b>
I hereby certify that this paper and the attachments herein are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington DC 20231.	
 James L. Rogers Reg. No. 44,305	<b>7/3/01</b> Date

Enz-49(P2)(C)

James G. Wetmur et al..

Serial No.: Not Yet Assigned

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Page 2 (Information Disclosure Statement)

Under 37 C.F.R. §§1.56 & 1.97-1.98 – May 25, 2001

1. ☒ For each of the following items listed on the enclosed copy of Form PTO-1449 that is not in the English language, an English language translation of that item or a portion thereof or a concise explanation of the relevance of that item is enclosed:
2. ☐ For each of the following items listed on the enclosed copy of form PTO-1449 that is not in the English language, a concise explanation of the relevance of that item is incorporated in the specification of the above-identified application.
3. ☐ Any copy of the items on the enclosed copy of Form PTO-1449 that is not enclosed with this Information Disclosure Statement was previously cited by or submitted to the Patent and Trademark Office in the prior ☐ Divisional or ☐ Continuation-In-Part application under 37 C.F.R. § 1.60, U.S. Serial No. \_\_\_\_\_, filed \_\_\_\_\_.
4. ☒ No fee is due under 37 C.F.R. § 1.17(p) for this Information Disclosure Statement since it is being filed in compliance with:
  - ☒ 37 C.F.R. § 1.97(b)(1), within three months of the filing date of the above-identified application.
  - ☐ 37 C.F.R. § 1.97(b)(2), within three months of the date of entry into the national stage as set forth in § 1.491 in an international application.
  - ☒ 37 C.F.R. § 1.97(b)(3), before the mailing date of a first Office action on the merits.
5. ☐ No fee is due under 37 C.F.R. § 1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. § 1.97(c), after the period specified in paragraph 4 above but before the mailing date of a final action or a Notice of Allowance (where there has been no prior final action), and is accompanied by one of the certifications pursuant to 37 C.F.R. § 1.97(e) set forth in paragraph 9 below.
6. ☐ A fee is due under 37 C.F.R. § 1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. § 1.97(c), after the period specified in paragraph 4 above but before the mailing date of a final action or a notice of allowance (where there has been no prior final action):

James G. Wetmur et al..

Serial No.: Not Yet Assigned

Filed : Herewith

Page 2 (Information Disclosure Statement

Under 37 C.F.R. §§1.56 & 1.97-1.98 – May 25, 2001

☐ A check in the amount of \$240.00 is enclosed in payment of the fee.

☐ Charge the fee to Deposit Account No. 05-1135, Order No. ENZ-7(P)(C3). A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

7. ☐ A fee is due under 37 C.F.R. § 1.17(i)(1) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. § 1.97(d), after the mailing date of a final action or a notice of allowance, whichever comes first, but before payment of the issue fee, and is accompanied by:

a. ☐ one of the certification pursuant to 37 C.F.R. § 1.97(e) set forth in paragraph 9 below; and

b. ☐ the attached petition requesting consideration of this Information Disclosure Statement; and

c. ☐ the fee due under 37 C.F.R. § 1.17(i)(1) which is paid as set forth in paragraph 10 below.

8. ☐ A fee is due under 37 C.F.R. § 1.17(i)(1) for this Information Disclosure Statement since it is being filed in compliance with:

a. ☐ 37 C.F.R. § 1.313(b)(3), after the issue fee has been paid and information cited in this Information Disclosure Statement may render at least one claim unpatentable and is accompanied by the attached Petition To Withdraw Application From Issue;

b. ☐ 37 C.F.R. § 1.313(b)(5), after the issue fee has been paid and information cited in this Information Disclosure Statement is to be considered in a Continuation application upon abandonment of the instant application and is accompanied by the attached Petition To Withdraw Application From Issue.

c. ☐ The fee due under 37 C.F.R. § 1.17(i)(1) is paid as set forth in paragraph 10 below.

9. ☐ I hereby certify that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.

☐ I hereby certify that no item of information in the Information Disclosure Statement filed herewith was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making

James G. Wetmur et al..

Serial No.: Not Yet Assigned

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Page 2 (Information Disclosure Statement)

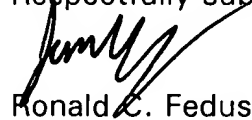
Under 37 C.F.R. §§1.56 & 1.97-1.98 – May 25, 2001  
reasonable inquiry, was known to any individual designated in § 1.56(c)  
more than three months prior to the filing of this Information Disclosure  
Statement.

10. ☐ A check in the amount of \$130.00 is enclosed in payment of the fee due  
under 37 C.F.R. § 1.17(i)(1).

☐ Charge the fee under 37 C.F.R. § 1.17(i)(1) to Deposit Account No. 05-  
1135. Order No. Enz-7(P)(C3). A DUPLICATE COPY OF THIS SHEET IS  
ATTACHED.

☒ The Commissioner is hereby authorized to charge any additional fees  
which may be required for this Information Disclosure Statement, or credit  
any overpayment to Deposit Account No. 05-1135. A DUPLICATE COPY  
OF THIS SHEET IS ATTACHED.

Respectfully submitted,



Ronald C. Fedus

Registration No.: 32,567

James L. Rogers

Registration No.: 44,305

Attorneys for Applicants

ENZO THERAPEUTICS, INC.  
c/o Enzo Biochem, Inc.  
292 Madison Avenue, 9<sup>th</sup> Floor  
New York, New York 10022  
Telephone: (212) 583-0100

James G. Wetmur et al.

Serial No.: Not Yet Assigned

Filed: Herewith

Page: 3 (Request for a Continuation Application Under 37 C.F.R. §1.53(b) -  
July 3, 2001)

\_\_\_\_\_ Any filing fees under 37 CFR §1.16 for  
presentation of extra claims.

6. \_\_\_\_\_ A check in the amount of \$\_\_\_\_\_ is enclosed.
7.   X   Cancel claims   2-116  .
8.   X   Amend the specification by inserting before the first line of the sentence: --- This is a   X   continuation, \_\_\_\_\_ divisional, \_\_\_\_\_ continuation-in-part, of U.S. Patent Application Serial No. 09/387,300, filed on August 31, 1999, now allowed, which is a continuation of U.S. Patent Application Serial No. 08/480,000, filed on June 7, 1995, which issued as U.S. Patent No. 5,958,681 on September 28, 1999, said Serial No. 08/480,000 being a continuation of U.S. Patent Application Serial No. 07/499,938, filed March 26, 1990, abandoned. ---
9. \_\_\_\_\_ Transfer the drawings from the prior application.
10.   X   Informal   X   Formal \_\_\_\_\_ drawings are enclosed.
11. \_\_\_\_\_ Abandon said prior application as of the filing date accorded this application. A duplicate copy of this sheet is enclosed for filing in the prior application file.
12. \_\_\_\_\_ Priority of application Serial No. \_\_\_\_\_ filed on \_\_\_\_\_ is claimed under 35 U.S.C. §119. \_\_\_\_\_ The certified copy of the priority application has been filed in prior application Serial No. \_\_\_\_\_, filed \_\_\_\_\_.
13.   X   The prior application is assigned of record to Enzo Therapeutics, Inc., c/o Enzo Biochem, Inc., 527 Madison Avenue, New York, New York 10022. A copy of the Assignment is enclosed.
14.   X   A preliminary amendment is enclosed.

James G. Wetmur et al.

Serial No.: Not Yet Assigned

Filed: Herewith

Page: 4 (Request for a Continuation Application Under 37 C.F.R. §1.53(b) -  
July 3, 2001)

15. ☒ The power of attorney in the prior application is to:  
Ronald C. Fedus, Reg. No. 32,567.
- (a) ☒ The power appears in the original papers in the  
prior application.
- (b) ☐ Since the power does not appear in the original  
papers, a copy of the power in the prior application  
is enclosed.
- (c) ☐ A copy of a new substitute power of attorney is  
enclosed.
- (d) ☐ A copy of a new Associate Power of Attorney is  
enclosed.
- (e) ☒ Address all future communications to: (May only  
be completed by applicant, or attorney or agent of  
record.)

Ronald C. Fedus, Esq.  
Enzo Therapeutics, Inc.  
c/o Enzo Biochem, Inc.  
527 Madison Avenue (9th Floor)  
New York, New York 10022

16. ☒ Oath or Declaration
- (a) ☐ Newly executed (original or copy)
- (b) ☒ Copy from a prior application (37 CFR 1.63(d))
- (c) ☒ With Power of Attorney
- (D) ☐ Without Power of Attorney

James G. Wetmur et al.

Serial No.: Not Yet Assigned

Filed: Herewith

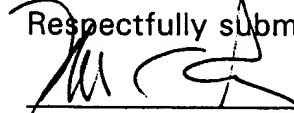
Page: 5 (Request for a Continuation Application Under 37 C.F.R. §1.53(b) -  
July 3, 2001)

17.   X   I hereby verify that the attached papers are a true copy of prior  
application Serial No. 09/387,300, filed on August 31, 1999.

The undersigned declares further that all statements made herein of his own  
knowledge are true and that all statements made on information and belief are  
believed to be true; and further that these statements were made with the  
knowledge that willful false statements and the like so made are punishable by fine  
or imprisonment, or both, under Section 1001 of Title 18 of the United States Code  
and that such willful false statements may jeopardize the validity of the application  
or any patent issuing thereon.

July 3, 2001  
Date

Respectfully submitted,



Ronald C. Fedus

Registration No. 32,567

Attorney for Applicants

       Inventor(s)

       Assignee of Complete Interest

  X   Attorney or Agent of Record

  X   Filed under 37 CFR § 1.34(a)

Address of Signator:  
Enzo Therapeutics, Inc.  
c/o Enzo Biochem, Inc.  
527 Madison Avenue (9th Floor)  
New York, New York 10022



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

JC490 U.S. PTO  
09/898750  
07/03/01

Applicants: James G. Wetmur et al.

Serial No. Not Yet Assigned

Filed: Herewith

Title: NUCLEIC ACID DISPLACER COMPOSITIONS  
AND CELLS COMPRISING SAME

Prev. Art Unit: 1656

Prev. Ex'r: Eggerton A. Campbell,  
Ph.D.

527 Madison Avenue, 9<sup>th</sup> Floor  
New York, New York 10022  
July 3, 2001

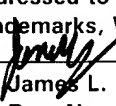
**FILED BY EXPRESS MAIL**

Honorable Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**INFORMATION DISCLOSURE  
STATEMENT UNDER 37 C.F.R. §§1.56 & 1.97-1.98**

Dear Sirs:

Pursuant to the provisions of 37 C.F.R. §§1.97-1.98, and in full compliance with their duty of disclosure under 37 C.F.R. §1.56, Applicants, through their attorney, are bringing the following thirty-seven (37) documents to the attention of the U.S. Patent and Trademark Office and the Examiner handling their above-identified application:

EXPRESS MAIL CERTIFICATE	
"Express Mail" Label No.: <b>EL839968724US</b>	
Deposit Date: <b>July 3, 2001</b>	
I hereby certify that this paper and the attachments herein are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington DC 20231.	
 James L. Rogers Reg. No. 44,305	<b>7/3/01</b> Date

Enz-49(P2)(C)



1. Lee et al., "A Physical Study by Electron Microscopy of the Terminally Repetitious, Circularly Permuted DNA from the Coliphage Particles of *Escherichia coli*," Journal of Molecular Biology 48:1-22 (1970) (Exhibit 1);
2. Vary et al., "A homogeneous nucleic acid hybridization assay based on strand displacement," Nucleic Acids Research 15:6883-6897 (1987) (Exhibit 2);
3. Thomas et al., "Hybridization of RNA to double-stranded DNA: Formation of R-loops," Proc. Natl. Acad. Science (USA) 73:2294-2298 (1976) (Exhibit 3);
4. Casey et al., "Rates of formation and thermal stabilities of RNA:DNA and DNA:DNA duplexes at high concentrations of formamide," Nucleic Acids Research 4:1539-1552 (1977) (Exhibit 4);
5. Radding et al., "Uptake of Homologous Single-stranded Fragments by Superhelical DNA," Journal of Molecular Biology 116:825-839 (1977) (Exhibit 5);
6. Corey et al., "Sequence-Selective Hydrolysis of Duplex DNA by an Oligonucleotide-Directed Nuclease," J. Am. Chem. Soc. 111:8523-8525 (1989) (Exhibit 6);
7. Rigas et al., "Rapid plasmid library screening using RecA-coated biotinylated probes," Proc. Natl. Acad. Sci. (USA) 83:9591-9595 (1986) (Exhibit 7);
8. Langer et al., "Enzymatic synthesis of biotin-labeled polynucleotides: Novel nucleic acid affinity probes," Proc. Natl. Acad. Sci. (USA) 78:6633-6637

(1981) (Exhibit 8);

9. Green et al., "Reassociation rate limited displacement of DNA strands by branch migration," Nucleic Acids Research 9:1905-1918 (1981) (Exhibit 9);
10. Collins et al., "A novel diagnostic method based on DNA strand displacement," Molecular and Cellular Probes 2:15-30 (1988) (Exhibit 10);
11. Vary et al., "Nonisotopic Detection Methods for Strand Displacement Assays of Nucleic Acids," Clinical Chemistry 32:1696-1701 (1986) (Exhibit 11);
12. Cox et al., "Directionality and polarity in recA protein-promoted branch migration," Proc. Natl. Acad. Sci. (USA) 78:6018-6022 (1981) (Exhibit 12);
13. Michelson et al., "Synthetic Polynucleotides" in Prog. Nucleic Acids Research 6:83-141 (Exhibit 13);
14. Radding et al., "Enzymatic Synthesis of Deoxyribonucleic Acid," Journal Biol. Chem. 237:2869-2876 (1962) (Exhibit 14);
15. Inman et al., "Helix-Random Coil Transitions in DNA Homopolymer Pairs," Journal of Molecular Biology 8:452-469 (1964) (Exhibit 15);
16. Inman, "Transitions of DNA Homopolymers," Journal of Molecular Biology 9:624-637 (1964) (Exhibit 16);
17. Tatsumi et al., "Production of DNA bifilarly substituted with bromodeoxyuridine in the first round of synthesis: branch migration during

isolation of cellular DNA," Nucleic Acids Research 5:331-347 (1978)  
(Exhibit 17);

18. Brown et al., "Cleavage specificity of the *Hae* restriction endonuclease isolated from *Haemophilus gallinarum* (*Hga* I)," Proc. Natl. Acad. Sci. (USA) 74:3213-3216 (1977) (Exhibit 18);
19. Thomas et al., "Viable Molecular Hybrids of Bacteriophage Lambda and Eukaryotic DNA," Proc. Natl. Acad. Sci. (USA) 71:4579-4583 (1974) (Exhibit 19);
20. Green et al., "Targeted deletions of sequences from closed circular DNA," Proc. Natl. Acad. Sci. (USA) 77:2455-2459 (1980) (Exhibit 20);
21. Capecchi, "Altering the Genome by Homologous Recombination," Science 244:1288-1292 (1989) (Exhibit 21);
22. Francois et al., "Inhibition of Restriction Endonuclease Cleavage via Triple Helix Formation by Homopyrimidine Oligonucleotides," Biochemistry 28:9617-9619 (1989) (Exhibit 22);
23. Povsic et al., "Triple Helix Formation by Oligonucleotides on DNA Extended to the Physiological pH Range," Journal American Chem. Soc. 111:3059-3061 (1989) (Exhibit 23);
24. Quartin et al., "Branch Migration Mediated DNA Labeling and Cloning," Biochemistry 28:8676-8682 (1989) (Exhibit 24);

25. Ellwood et al., "Strand Displacement Applied to Assays with Nucleic Acid Probes," Clinical Chemistry 32:1631-1636 (1986) (Exhibit 25);
26. Lewin, Chapter 3, "The Topology of Nucleic Acids," and Chapter 4, "Isolating The Gene," in Genes III, John Wiley & Sons (publ.), New York 57-94 (1987) (Exhibit 26);
27. Loewy et al., "Site-directed transcription initiation with a mobile promoter," Gene 83: 367-370 (1989) (Exhibit 27);
28. Williams et al., U.S. Patent No., 4,766,064 (Exhibit 28);
29. Diamond et al., U.S. Patent No. 4,766,062 (Exhibit 29);
30. Urdea et al., U.S. Patent No. 5,124,246 issued June 23, 1992 (Exhibit 30);
31. Wetmur et al., U.S. Patent No. 5,958,681 (Exhibit 31);
32. Collins et al., European Patent No. EP 0 167 238 (Exhibit 32);
33. Collins et al., European Patent No. EP 0 164 876 (Exhibit 33);
34. PCT International Publication No. WO 87/01730, published March 26, 1987 (Exhibit 34);
35. PCT International Publication No. WO 86/06412, published November 6, 1986 (Exhibit 35);

36. Urdea, European Patent No. EP 0 317 077 B, published January 31, 1996 (Exhibit 36);
37. PCT International Publication No. WO 89/11548, published November 30, 1989 (Exhibit 37);

Copies of the above listed 37 documents are being submitted herewith as Exhibits 1-37. A completed Form PTO-1449 is also attached as Exhibit 39.

By way of explanation, all of the above listed 37 documents were previously submitted in a March 1, 1994 IDS filed in the parent application, Serial No. 09/387,300, filed on August 31, 1999. Those 37 documents were also listed on a Form PTO-1449 submitted with the March 1, 1994 IDS. All of those 37 documents were considered by the Examiner on a return May 7, 2001 Form PTO-1449 (Exhibit 38) and attached to a Notice of Allowance mailed on May 8, 2001.

By this voluntary citation of art, Applicants and their attorney are requesting that the documents be made of record in the instant application.

The above citation of references is not a representation that these documents constitute a complete or exhaustive listing, nor that the above listing necessarily includes the closest or most relevant references, nor are these documents necessarily a complete listing of all references known to Applicants or their attorney. It is simply a voluntary citation of references made in good faith, which is not intended to serve in any way as a substitute for the Examiner's own search.

In view of the general and specific features described and claimed in the

present application, Applicants respectfully submit that the present invention is neither suggested nor disclosed by the documents referred to above and is thus patentably distinct thereover. Furthermore, Applicants do not believe, and do not submit, by the citation of these references, that these references, either by themselves or in combination with other references, render the invention prima facie obvious under any of the duty of disclosure rules.

Applicants respectfully request that the Examiner make the above-submitted documents of record in the instant application. Applicants further request that the Examiner consider these documents as any of them may relate, however remotely, to the present application.

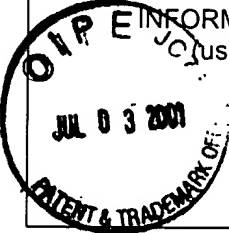
This IDS is being filed in accordance with 37 C.F.R. §1.97(b)(3), that is, prior to issuance of a First Office Action on the merits. Applicants believe that no fee is required. Should a fee be deemed required, the Patent and Trademark Office is hereby authorized to charge the amount of this fee (and any other fees in connection with this IDS) to Deposit Account No. 05-1135, or to credit any overpayment thereto.

Respectfully submitted,



Ronald C. Fedus  
Registration No. 32,567  
James L. Rogers  
Registration No. 44,305  
Attorneys for Applicants

ENZO THERAPEUTICS, INC.  
c/o Enzo Biochem, Inc.  
527 Madison Avenue, 9<sup>th</sup> Floor  
New York, New York 10022  
Tel. (212) 583-01000

Form PTO-1449 U.S. Department of Commerce (REV. 8-83) Patent and Trademark Office	Atty. Docket No. ENZ-49(P2)(C)	Serial No. Unknown
 INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)	Applicants: James G. Wetmur et al.	
	Filed: herewith	Group: Unknown

1c978 U.S. PTO  
09/898750

07/03/01

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPRO- PRIATE
	4 7 6 6 0 6 4	08/88	Williams et al.	435	6	05/07/84
	4 7 6 6 0 6 2	08/88	Diamond et al.	435	6	12/20/84
	5 1 2 4 2 4 6	06/92	Urdea et al.	435	6	04/18/89

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRAN- SLATION YES NO
0 1 6 7 2 3 8	08/86	EP			
0 1 6 4 8 7 6	12/85	EP			
0 3 1 7 0 7 B1	1/31/96	EP			
W 8 0 1 7 3 0 O 7	03/26/87	PCT International			
W 8 0 6 4 1 2 O 6	11/06/86	PCT International			

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Lee et al., "A Physical Study by Electron Microscopy of the Terminally Repetitious, Circularly Permuted DNA from the Coliphage Particles of <i>Escherichia coli</i> ," <u>Journal of Molecular Biology</u> 48:1-22 (1970)
	Vary et al., "A homogeneous nucleic acid hybridization assay based on strand displacement", <u>Nucleic Acids Research</u> 15:6883-6897 (1987)
	Thomas et al., "Hybridization of RNA to double-stranded DNA: Formation of R-loops", <u>Proc. Natl. Acad. Science (USA)</u> 73:2294-2298 (1976)
EXAMINER	DATE CONSIDERED
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Form PTO-1449 U.S. Department of Commerce (REV. 8-83) Patent and Trademark Office INFORMATION DISCLOSURE CITATION (use several sheets if necessary)	Atty. Docket No. ENZ-49(P2)(C)	Serial No. Unkown
	Applicants: James G. Wetmur et al.	
	Filed: Herewith	Group: Unkown



## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPRO- PRIATE
	5 9 5 8 6 8 1	09/99	Wetmur et al.	435	6	06/07/95

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRAN- SLATION YES NO
W 8 1 1 5 4 8 O 9	11/30/89	PCT International			

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)


	Casey et al., <u>Nucleic Acids Research</u> 4:1539-1552 (1977)
	Radding et al., "Uptake of Homologous Single-stranded Fragments by Superhelical DNA", <u>Journal of Molecular Biology</u> 116:825-839 (1977)
	Corey et al., "Sequence-Selective Hydrolysis of Duplex DNA by an Oligonucleotide-Directed Nuclease," <u>J. Am. Chem. Soc.</u> 111:8523-8525 (1989)
	Rigas et al., "Rapid plasmid library screening using RecA-coated biotinylated probes", <u>Proc. Natl. Acad. Sci. (USA)</u> 83:9591-9595 (1986)
	Langer et al., "Enzymatic synthesis of biotin-labeled polynucleotides: Novel nucleic acid affinity probes," <u>Proc. Natl. Acad. Sci. (USA)</u> 78:6633-6637 (1981)
	Green et al., "Reassociation rate limited displacement of DNA strands by branch migration", <u>Nucleic Acids Research</u> 9:1905-1918 (1981)

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO-1449 U.S. Department of Commerce (REV. 8-83) Patent and Trademark Office INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) 	Atty. Docket No. ENZ-49(P)(C)	Serial No. Unkown
	Applicants: James G. Wetmur et al.	
	Filed: Herewith	Group: Unkown

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPRO- PRIATE

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANS- LATION YES NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Inman, " <u>Journal of Molecular Biology</u> 9:624-637 (1964)
	Tatsumi et al., "Production of DNA bifilarly substituted with bromodeoxyuridine in the first round of synthesis: branch migration during isolation of cellular DNA", <u>Nucleic Acids Research</u> 5:331-347 (1978)
	Brown et al., "Cleavage specificity of the restriction endonuclease isolated from Haemophilus gallinarum (Hga I)", <u>Proc. Natl. Acad. Sci. (USA)</u> 74:3213-3216 (1977)
	Thomas et al., "Viable Molecular Hybrids of Bacteriophage Lambda and Eukaryotic DNA", <u>Proc. Natl. Acad. Sci. (USA)</u> 71:4579-4583 (1974)
	Green et al., "Targeted deletions of sequences from closed circular DNA", <u>Proc. Natl. Acad. Sci. (USA)</u> 77:2455-2459 (1980)
	Capecci, "Altering the Genome by Homologous Recombination", <u>Science</u> 244:1288-1292 (1989)
EXAMINER	DATE CONSIDERED
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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## U.S. PATENT DOCUMENTS


EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPRO- PRIATE

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRAN- LATION YES NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Francois et al., "Inhibition of Restriction Endonuclease Cleavage via Triple Helix Formation by Homopyrimidine Oligonucleotides," <u>Biochemistry</u> 28:9617-9619 (1989)
	Povsic et al., "Triple Helix Formation by Oligonucleotides on DNA Extended to the Physiological pH Range", <u>Journal American Chem. Soc.</u> 111:3059-3061 (1989)
	Quartin et al., "Branch Migration Mediated DNA Labeling and Cloning," <u>Biochemistry</u> 28:8676-8682 (1989)
	Ellwood et al., "Strand Displacement Applied to Assays with Nucleic Acid Probes," <u>Clinical Chemistry</u> 32:1631-1636 (1986)
	Lewin, Chapter 3, "The Topology of Nucleic Acids," and Chapter 4, "Isolating The Gene," in <u>Genes III</u> , John Wiley & Sons (publ.), New York 57-94 (1987)
	Loewy et al., "Site-directed transcription initiation with a mobile promoter," <u>Gene</u> 83: 367-370 (1989)
EXAMINER	DATE CONSIDERED
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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Collins et al., "A novel diagnostic method based on DNA strand displacement", <u>Molecular and Cellular Probes</u> 2:15-30 (1988)
	Vary et al., "Nonisotopic Detection Methods for Strand Displacement Assays of Nucleic Acids," <u>Clinical Chemistry</u> 32:1696-1701 (1986)
	Cox et al., "Directionality and polarity in recA protein-promoted branch migration," <u>Proc. Natl. Acad. Sci. (USA)</u> 78:6018-6022 (1981)
	Michelson et al., "Synthetic Polynucleotides" in <u>Prog. Nucleic Acids Research</u> 6:83-141
	Radding et al., "Enzymatic Synthesis of Deoxyribonucleic Acid", <u>Journal Biol. Chem.</u> 237:2869-2876 (1962)
	Inman et al., "Helix-Random Coil Transitions in DNA Homopolymer Pairs", <u>Journal of Molecular Biology</u> 8:452-469 (1964)
EXAMINER	DATE CONSIDERED
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